

C L A I M S

1. A filter system for use in a reactor, the filter system having filter means to separate fluid from a mixture of particulate matter and fluid, and having a filter housing adapted to connect to the reactor and adapted to receive the filter means, wherein the filter means is retractable into the housing.
2. A filter system as claimed in claim 1, wherein the filter means is retractable through an aperture in the reactor.
3. A filter system as claimed in claim 1 or claim 2, wherein the housing is typically detachably connected to the aperture.
4. A filter system as claimed in any preceding claim, wherein the filter means has an export conduit to deliver filtrate from the filter means.
5. A filter system as claimed in any preceding claim, wherein the filter means is retracted into the housing by the export conduit.
6. A filter system as claimed in any preceding claim, wherein the housing has an outlet for removing the filter means therefrom.
7. A filter system as claimed in any preceding claim, wherein the housing has at least one sealing device to isolate the housing from the reactor.
8. A filter system as claimed in any preceding claim, wherein the filter means has a cap adapted to prevent settling of fines on the filter means, preferably a filter system wherein the cap has a sloped upper surface.

9. A method of removing a filter from a reactor, the method comprising the steps of providing a filter housing communicating with the reactor through an aperture, retracting the filter from the reactor through the aperture and into the filter housing, and sealing the aperture between the reactor and the housing.

10. A method according to claim 9, wherein the filter is removed from the housing after the aperture has been sealed.

11. A method according to claim 9 or claim 10, wherein the housing is pressurised to match the internal pressure of the reactor before the aperture to the reactor is opened.

12. A reactor provided with one or more filter system according to any of claims 1 to 8.

13. Process for the preparation of hydrocarbons in a reactor by reacting carbon monoxide and hydrogen in the presence of a catalyst, preferably a supported cobalt catalyst, and in the presence of liquid hydrocarbons, and removing formed liquid hydrocarbons from the reactor by a filter system according to any one or more of claims 1 to 9, optionally followed by the hydrotreatment of the hydrocarbons obtained in the process, the hydrotreatment especially being the hydrogenation, hydroisomerisation and/or the hydrocracking, and if desired, followed by distillation.